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THE GHOST-LOVER.

IN TWO PARTS.—PART I.

In the year 1810, General von Streiben, commander in the Würtemberg branch of the army of the Germanic Confederation, laid aside his jackboots, his epauletted coat, and his plumed cocked-hat, and subsided into private life. He had seen forty years of active service, and was now superannuated and pensioned. Having, besides the pension, a small private fortune of his own, he was enabled to take up his residence at Stuttgart, the capital of Würtemberg, and to live in a very comfortable and respectable style, surrounded and cherished by a large circle of military and civilian friends, who honoured the brave old soldier, and loved to hear his fine talk—for a service of forty years in an age of wars gives a man a great deal to talk about, and a grand style of talking too. The slightest reminiscences which issued from beneath his shaggy moustache were worth hearing. Nearly half a century of exciting and perilous work had imparted firmness and sharpness to his mind, and to his language rare force and vigour.

He had been married, but his wife did not long survive the birth of his only child. That only child, Clemenza von Streiben, was now the chief delight and solace of the widowed veteran. She was in her nineteenth year when the general threw aside his jackboots and cocked-hat; a beautiful and accomplished young lady, the pride of the old warrior's heart, and the toast of half the young officers and gentlemen in Stuttgart. But her love-lot was already cast. Of many suitors, one had been preferred and accepted—Konrad Povelski, a handsome and estimable young lieutenant in the service of the grand-duke—whose high character and promising talents bade fair to render him a distinguished ornament of the army.

Incessant warfare marked the first fifteen years of the century, and Konrad had already passed the fiery baptism of the battle-field, when he became the suitor of Clemenza. Napoleon was pursuing his great career; all the old monarchies of the continent were in a state of rout, terror, and dislocation. All the powers, save Russia, had been smitten and humbled; and Würtemberg itself was now even as a principality of France, Napoleon having procured the use of its army by a treaty of indemnity, and by securing to the duke an acquisition of territory and the rank of elector in the German Empire.

The general disturbance of affairs, and the frequent wars, entailed upon Konrad almost a continuity of absence from home; but as he always returned in honour and safety, and with increased hopes of preferment and distinction, his suit with the beautiful Clemenza still prospered; and next to her, none in the world loved the young soldier better than did the brave old general, who took great pains to initiate him into all the plans of the campaigns, all the movements and manœuvres of the great battles in which he himself had been engaged, giving him the benefit of his varied experiences and natural military talents—thus making a disciple of his future son-in-law.

So, with frequent interruptions, the courtship proceeded for two years, when Konrad gained promotion, and was made captain of a company. It was then arranged that the marriage should take place, and preparations were actually in progress for the happy event, when Captain Povelski was awakened from his dream by an order to put his company in marching-order immediately. The order was obeyed. As yet, Konrad knew not in what quarter he would be commanded to serve, but it was plain that some movements of importance were in contemplation; and as General von Streiben offered to lay any wager that Konrad would go, with the flower of the Würtemberg troops, to assist Napoleon against Russia, the marriage was deferred until things should have come round a little.

The general was right. The troop of Captain Povelski, together with all the best officers and soldiers that could be picked out of the little Würtemberg army of 16,000 men, were placed at the service of Napoleon, to take part in that unparalleled exhibition of audacity and calamity—the Russian campaign of 1812.

It was at the end of June that Konrad with his troop advanced to meet the French army. The young officer set out on this expedition with none of the ardour and vivacity which had characterised his behaviour on all previous occasions, when he had been proceeding to active service. To his own private disappointment, there was added an amount of despondency and sadness, which appeared doubly remarkable in one whose temperament was ordinarily so brave, firm, and equal. Clemenza was much distressed at this unwonted display of feeling, and, like a woman, began to think of omens, of impending misfortune, of bereavement. The general alone sustained his hearty good cheer. 'What wonder,' cried he, 'that our Konrad is a little out of sorts, seeing that he had made up his mind to be married? Where is the young man who would like to put off such an affair as that, to Heaven knows when!'

'But it is not that, dear father,' said poor Clemenza, blushing, and then turning pale. 'It is not mere annoyance that makes our Konrad appear so strange. There is something more serious and alarming in his behaviour, for he is silent and prepossessed, and regards the future with despondency, like a man whose doom

already hovers over his head. Has he not said to me already three times, that our marriage is now an affair for the world that is to come?'

'Ah! bah! Clemenzlieb—there you see—it is *our marriage*. That is what vexes the boy so; and no wonder, I say. But still, if he is really timorous about the battle, and for the first time, after the pretty tolerable round he has been in for a young man, then, mark my words, it is a good sign.'

'Dear father, how can you think that?'

'A good sign, I tell thee, my dear. Ask any old captain or general in the army. They will tell thee that when a man goes to battle with songs and hurrahs, there 's sure to be something in store for the other side of his mouth; but when he sets out with a steady step, a thoughtful head, and a beating heart, thinking of nothing but duty and death, he is like to come back safe and sound, and with flying-colours. 'Tis like an old woman's proverb amongst the soldiers.'

The evening before his departure, Konrad, after a day's hard work in forwarding the preparations of his troop, seized an hour for himself, and walked with Clemenza through the charming suburb of Esslingen, and the neighbourhood of the royal villa of Monrepos. He made great efforts to be gay, but without much success. Though it was delightful to find him cheerfully disposed, it was not pleasing to detect that the apparent disposition was assumed at the cost of sincerity. And such assumptions seldom pass far betwixt people who know each other thoroughly; so before long, Konrad was again gloomy and meditative, and there was in the tenderness of his behaviour towards his intended bride an excess of deep feeling and melancholy, that argued the strength with which some unhappy foreboding had taken possession of his mind. At length it broke forth in words, which, alas! could not be mistaken for assumption, either of gaiety or grief.

'My dearest, I go to-morrow,' said he; 'and something tells me I shall see you no more until I am in the spirit. Will you think of me then? Will you watch for me, should it be permitted that I may approach you from the Unknown Land?'

'Dear Konrad, I shall think of you ever and ever; and for those who possess our thoughts and affections, are we not always on the watch? But this sad humour does not become you: it is only some wandering fancy of the mind, and you must not entertain it with such serious homage. When has fortune failed my Konrad? and when has fortune failed the Emperor, in whose cause he is going to fight? Oh, you will come back to me with new honours and a lighter heart! Drive away those sombre fancies, I entreat, or I shall be unhappy all the time you are gone.'

'I have tried hard to do so these three days past, geliebte,' said Konrad, taking her hand with a mournful smile, 'and you see with what sad success. I know not why it is, but a foreboding, strong as a physical malady, has seized me; and do what I will, I cannot drive the thought from my head, that I shall never see our dear old Stuttgart or my darling Clemenza again. Will you pray for me when I am gone?'

'Day and night, dear Konrad.'

'And if anything happens, will you still remember me? And should it be permitted that I visit you from the grave, will you look at me and speak to me?'

Poor Clemenza could hardly answer for the tears that burst from her eyes; but again she remonstrated against these unreasonable and gloomy fancies. Konrad, however, with strange persistence, which still increased her grief and affright, declared that he could not withstand the prescience of instinct, and repeated his request. Clemenza promised; and now both fell into the same train of thought and conversation. When they parted that night, their adieus were almost like those of lovers who were torn from each other for ever.

The next day, Captain Povelski and his troop, together with the flower of the Würtemberg army, marched from Stuttgart, amidst the acclamations of the inhabitants, and a general demonstration of popular regard. Wreaths and flowers were showered by fair hands from the windows, and the single flower that was thrown by the fairest in Stuttgart was caught by Captain Povelski.

After the departure of the troops, the constant, passionate craving of the public was for news, news. Large crowds gathered around the stadthaus, the embassies, the news-offices, the barracks, from morning till night. The *Zeitungsträger* and *Verkündiger* were eagerly awaited, purchased, and read. In quick succession, after the tidings that the Grand Army had crossed the Niemen—a mighty host of 355,000 infantry, 60,000 cavalry, with 1200 pieces of artillery—came those of the separation of the Russian corps of Prince Bagration and Barclay de Tolly by the masterly generalship of Napoleon; the seizure of Wilna; the proclamation of Poland as an independent nation; the retreat of the Russians upon the Dwina; their abandonment of the imperial head-quarters, and intrenched camp at Drissa; the victory of Marshal Davoust over Prince Bagration at Mohilow; the seizure of the great town of Smolensk; the victory of the French at Poltosk; till, on the 14th of September, Napoleon and his army entered Moscow. Then came the astounding news of the burning of the city by the Russians; and towards the end of October and in November, the heart-rending accounts of the disastrous and frightful retreat of the French from the dominions of the czar.

By none were the newspapers more eagerly scanned, and intelligence more anxiously sought, than by General von Streiben and his daughter; the former by reason of unconquerable *esprit de guerre*, and the latter from the solicitude of one whose heart and its dearest hopes were suspended upon the issue of events.

During the early weeks of the campaign, Konrad had written thrice, and in a tone of good cheer. Indeed, after each of the successive victories which marked the commencement of hostilities, the general had been rendered triumphant and hilarious, and the wistful Clemenza had been comforted, by receiving an account of it in Konrad's own handwriting.

But after the third letter, they heard from him no more; nor did they learn anything respecting him until the February of 1813, when a worn and ragged troop of men—the only remaining fragments of the fine little army which started from Stuttgart in the preceding summer—straggled back again. By one of these it was stated, that Captain Povelski had been shot in the head at Poltosk, and had been taken to the hospital established there by the French; that was before the proceedings at Moscow, and before the fatal retreat; therefore, argued the soldier, if nothing had been heard of him since, seeing that six months had passed, it must be supposed that he had died. The general and Clemenza, and all their friends, pursued their inquiries by every possible means; but only procured, without a single ray of hope, unanimous confirmation of the soldier's statement, that Povelski had been shot in the head during the engagement at Poltosk, and had been taken to the French hospital, where he had undoubtedly died.

Month after month passed away, until a whole year had elapsed since Konrad's departure. General von Streiben—knowing well what the hazards of a campaign were, and especially the perils of a war-hospital—had long since given up his much-beloved pupil and son-in-law for lost. Clemenza had also resigned herself to that belief; and both wore mourning for the sake of the fine and dear young fellow.

One evening in June, a twelvemonth after that June in which she and Konrad had taken their last

evening-walk, Clemenza was sitting in the window of the salon, her hands occupied with a dainty morsel of needle-work, and her mind with many tristful recollections. The old general sat in his easy-chair, smoking his great silver-mounted pipe, alternately dozing and making strenuous attempts to read the *Zeitungsträger*. It was in the hearts of both of them that exactly a twelvemonth had passed since Konrad went to the wars.

'It is the twenty-third of June to-morrow,' said the general, by and by, looking round. 'We will not go out, my Clemenza, nor see company, darling.'

'No,' returned Clemenza.

'Never, as long as I live, shall I have the heart to be merry or pleased on the twenty-third of June.'

'Never,' echoed Clemenza.

'Never; unless it please God to restore our Konrad to us; and in that happy case, then should the twenty-third of June be the grand fête-day of the whole year.'

'Ah, yes, dear father; a fête-day, indeed.'

'And thou, my Clemenza, wouldst then dance and be gay.'

'Ah, do not speak of it; for have not the dispensations of Heaven prevented such happiness?'

'Who knows, my child?'

'But, father, have not you yourself entertained the assurance that our Konrad is lost to us?'

'I have, alas! been of that belief, Clemenzlieb; but still my fancy at times grows hopeful, and looks back upon the many marvellous chances witnessed in the old wars.'

'Have you, then, known a case in which an officer wounded—lost—and reported dead by all his own troop—has, after long lapse of time, returned?'

'Even such. There was Colonel Swienberg, who was never seen or heard of for seven years, and was believed to be dead all that time; and after the family had solemnised some score of masses for the repose of his soul, he walked into the midst of them one evening, strong and hearty!'

'And what had happened to him, and where had he been all that while?'

'Ah! it's a long story, geliebte. He had been made prisoner by the Turks, with whom we were at war in those days; had been wounded; had been put in hospital; had recovered; had been put in prison; had escaped; had been captured; had escaped again; been recaptured again; and this over and over. They didn't shoot him, however; and he managed to get off at last, and after many a strange adventure got home again.'

'Ah!' sighed Clemenza, 'it is wrong of us to cite such a hopeful precedent. Such a case is one of ten thousand.'

'True, my girl.'

'And Konrad, perhaps, was not of such sanguine and indomitable nature as Colonel Swienberg. Konrad was of a meditative and speculating turn.'

'But a good soldier, all the while.'

'Yes; and brave and generous, dear fellow.'

'Grieve not, my daughter; we are all in the hands of Providence, which giveth and taketh away.'

'The Heavenly Father have mercy on our weakness!'

'Amen, Clemenzlieb!—How fair the evening settles down'—the general had walked to the window—'and how sweetly the summer mist hangs round the trees and round the roof of Monrepos.'

'Ah!' sighed Clemenza, 'it was just such an evening twelve months ago.'

'Hark! it is already nine.'

'How murmuring and dreamy sound the old chimes.'

'And there, look you, over yonder tree, rises the moon, clear and bright.'

'Yes; how serene and refulgent.'

'There will be no darkness to-night; the luminaries shine over us in such quick succession. Shall we walk out, and look round a little, for to-morrow we do not mean to go forth?'

'I am tired, and would rather rest here, sir. It is pleasant to look out, while all is so sweet and quiet.'

'Ay, it is so, my love. It is the hour and the scene to make one dream over happy days. Many a time, when far—not from home, for the camp was my home for more than thirty years—but from my native land, and surrounded by the perils of a hard campaign, have I felt the sweetness of a summer night like this, filling the mind with pleasant thoughts, and with happy memories of the past.'

The old general seemed himself in a meditative mood. He made no further allusion to walking out, but returning to his great arm-chair, refilled his pipe, and leaning comfortably back, seemed to compose himself for a reverie.

This little conversation had deepened the relaxing influence of the beautiful summer night, and both father and daughter were disposed to an imaginative and romantic turn of mind.

'And Konrad bade thee adieu, as if he were never to see thee more?' asked the general after a long silence.

'Yes; he had sad forebodings,' returned Clemenza with a deep sigh.

'Ah! more 's the pity. If things are to come to the worst, who is to help it? In my time, it was not the fashion to be downcast beforehand.'

'But Konrad was like none other, and we cannot help our natures,' said Clemenza, a little vexed.

'And he said, then, he had no hope of seeing thee again?'

'He said—poor, dear Konrad!—that if aught happened, he would visit me in the spirit!'

'Ah! that was not well. You must not dwell upon such a promise as that, darling. It was not well for thy peace that he should speak of such a thing. Never think of it, I entreat you, child.'

Clemenza was silent.

Evening had passed away, and it was night. Over houses and trees, the beautiful light of the warm summer moon threw a silvery sheen. And now all was still in the streets of Stuttgart. The patrol had gone its round, and the people were within doors. 'It is like a dream of another world,' murmured Clemenza. All was so divinely fair, the light so soft and tender, the forms and colours of objects so harmonised and mellowed by the thin mist. 'Would that my Konrad were here!—safe and well, and at home again!'

The wish had hardly been murmured, when a dull heavy sound of footsteps broke upon her ear. In the daytime, a noise so slight and muffled would barely have been noticed or heard; but now, amid the silence, it monopolised the attention. Clemenza leaned a little out to see who was coming; it was a soldier on horseback, advancing at a measured and solemn pace. There was something strangely spectral in the appearance of the night-wanderers. The horse was gaunt, bony, and lame, and seemed, from the muffled sound of its footsteps, to have lost the shoes off its hoofs. The horseman appeared to be in as bad case as his steed: his uniform was soiled and tattered, and hung in sad disorder upon his shrunken frame, as if it had once belonged to a stouter man. His helmet was slouched low down over his forehead, so as to conceal his face from any one looking down upon him; and the plume was diminished to a single feather, which drooped forlornly towards the earth. With halting, yet measured and steady progress, the strange apparition came on. Clemenza softly called to her father to come and see the unwonted sight; but the general had dozed into slumber, and did not hear. As the horse and rider gained the front of the general's house, they stopped in the middle of the street. Then, for the first time, the horseman looked up; and, in spite of ghastly emaciation, hollow cheeks, and wildly shining eyes, Clemenza

recognised her Konrad! It seemed as if he had expected to see her there. He looked directly up to the very window at which she stood, and, with a gesture of infinite grief and despair, solemnly saluted, and then passed on and away through the silent streets.

'Why, what is the matter, child?' cried the general, starting from his nap. 'What could ail you, that you screamed out like that? Are you ill, darling? What is it?'

'It is Konrad!'

'You have been dreaming. Put off that scared look, I entreat, and compose yourself.'

'Let me go; he cannot be yet far off.'

'There—let me put more water on your forehead; you are not recovered; you have been dreaming, and have lost your senses. Smell this bottle—drink this brandy.'

'It is no dream. Konrad, wasted to a skeleton, has just passed down the street.'

'My poor child is delirious.'

'Oh, let us hasten out and overtake him.'

'You have been brooding over the unholy adieus.'

'I have neither slept nor dreamed. It is plain truth that he has just gone by; and if you will come with me down the street, you will see him, and then be satisfied that it is no dream—no delirium.'

So assured, so piteously beseeching was she, and, in spite of her agitation, so self-possessed, that the general gave up the contest, and with a baffled, incredulous air put on his hat and took up his pipe again. Clemenza threw a shawl over her head and shoulders, and led him out in a great hurry. They then went down the street, and some distance along the Esslingen road, and scrutinised wistfully all the adjacent roads and streets; but the worn-out horse-soldier was nowhere to be seen. In deference to Clemenza's great anxiety, they roamed hither and thither for more than an hour; but nothing came of it. At last they returned home, the general much strengthened in his argument, insisting upon it that Clemenza had fallen asleep by the window while full of thought about Konrad, and had dreamed of him.

Poor Clemenza was half demented, and hardly knew what to think, even of her own actual experience—whether it was indeed a dream, or some terrible reality to which a clue was only to be found in the parting words and behests of Konrad. However, thus the matter rested for the present. The general was too well satisfied with his own hypothesis to make any inquiries as to whether other people had seen the lost one; and Clemenza, from a vexing sense of uncertainty, and from a fear of ridicule, was also silent upon the subject.

The next day, the 23d of June, so memorable to these two, and to many another warm heart in Stuttgart, they spent in seclusion, neither going forth nor receiving company. The evening was a fine one, like the preceding, and again Clemenza sat at the window, vaguely wondering whether the vision of last night would be repeated. Determined to suffer no delusion of the senses—determined that if anything happened it should not be said that she slept or dreamed—she kept a glass of water and her vinaigrette by her side, and at intervals sipped and smelt, sipped and smelt, in order to assure herself that she was certainly wide awake. But these precautions were taken in vain, for nothing whatever occurred. The summer night passed away without dream or apparition.

A month went by in the usual everyday style; no solution was afforded to the mystery. The general had forgotten it by this time, and Clemenza had almost begun to believe in the truth of the suppositions he had uttered whilst restoring her from her fainting-fit. Nevertheless, she did not fail to keep vigil—to 'mount guard,' as the general said—at the window every evening. After this month had elapsed, Clemenza was again excited by seeing a semblance of Konrad in the cathedral one Sunday morning. In the middle of the mass, when all eyes were engaged by the priest, and all ears by the music of the choir, a haggard spectral figure rose up by the side of a pillar, and looked fixedly at Clemenza, with a most heart-touching expression of anguish, despair, and resignation. Again, in spite of hollow cheeks and wildly shining eyes, Konrad was recognised, and Clemenza, with a stifled shriek, fell from her seat, to the great astonishment and affright of the general, who had not perceived the cause of agitation, and who now, assisted by a sacristan, bore his daughter out of the building, amidst the wondering congregation. All sorts of inquiries were made, with a view to discovering who the seeming Konrad could be, or where he was; but still without effect.

A week or two after, a precisely similar occurrence took place at the opera, whither the general had taken his daughter for the sake of amusement and exhilaration of mind. The same weird-face rose up before the heart-sore young lady; the sadly impassioned gaze was fixed upon her; and then the figure disappeared amidst the company. This time she did not faint, but hurriedly communicated to her father the cause of her agitation. The general, in spite of much inconvenience, went instantly to the part she indicated, and examined every one in the *loge*. Unfortunately, the nature of the occasion prevented him from asking any very searching questions; but he saw there was no Konrad, or semblance of Konrad, within view, for he could recognise every person as an inhabitant of Stuttgart or its vicinity.

Then General von Streiben, greatly afflicted, began to think that his daughter's mind was affected; that continual brooding upon her bereavement had preyed upon her intellect and disordered it. In this belief, he consulted a physician, and the physician advised change of air and scene. Upon this advice the general instantly acted, procured passports, and removed himself and household to Vienna. Clemenza was greatly adverse to the removal; but the general, set upon effecting her recovery, would hear of no opposition, and when his mind was made up, upon anything whatever, the old soldier was as firm as a rock.

AMERICAN JOTTINGS.

LATE INVENTIONS AND PROJECTS.

FAVOURED by a wide field of enterprise, and with inventive faculties sharpened by education and surrounding circumstances, the Americans—more particularly the New Englanders—display the most extraordinary boldness and ingenuity in their mechanical and other improvements. Speaking on this subject to a gentleman connected with a railway undertaking in one of the northern states, he declared that *discontent* was one of the noblest of all principles. 'No man,' said he, 'should rest satisfied till he has surpassed everybody he knows. Whatever any one does, another should try to do it better, giving himself no rest till he has done so; and he can do so, too, *if he likes*. If a shoemaker makes first-rate shoes, it is the duty of other shoemakers to make them double first-rate. The truth is, all things in this world can be made vastly better than they are at present. It is only your stupid, slow people who think we have reached perfection.' And so on he went, expatiating on the beauty of everlasting restlessness. This person was mayor of a city, and in his own conduct as a public man exemplified the mental energy and resources of the true American, with scarcely any other object in view but to 'go-ahead.'

A few recent instances of improvements in the arts in America may be acceptable. Methods of insuring greater safety as well as speed on railways, have received the attention of inventors. We see it mentioned in a late newspaper, that D. C. Grinnel, of New York, has suggested a means by which trains may be prevented from going off the track, and at the same time be run at a very high speed. His plan is, to give the track four rails, preserving the ordinary gauge. For each rail there is a wheel, so that the carriages are supported by four wheels in the breadth instead of two. This arrangement is to insure greater steadiness in running, and to render a speed of a hundred miles an hour practicable and safe. As rails of lesser weight than usual may be employed, the additional expense of fitting up a railway on this plan is not expected to be great. The scheme is worth considering.

Improvements in firearms have latterly received much attention. What an immense stride in advance, for example, from the old double-barrelled pistol to the Colt's revolver! It has been said that the late successes of the American army were due mainly to the revolver. The British government, slow to adopt improvements in military matters, have introduced, only after urgent pressure from without, the use of the revolver from America, and the Minié rifle from France. We may soon be called on to record an important improvement on the Minié. The Americans have for some time been considering how this instrument may be superseded by a new engine of destruction, as far in advance as was the revolver on the common pistol. According to recent intelligence, Mr Howe, of Milwaukie, in the state of Wisconsin, has invented a new kind of rifle, which, with the leading features of the Minié, possesses not only great power, but a means of rapid charging and firing. A correspondent of a Chicago newspaper thus speaks of this new rifle: 'It is not yet perfected in the cocking and capping arrangements, which will form part of a single movement—raising the lower end of the barrel to receive the cartridge. As it is, however, Howe's rifle, at forty yards' distance, drove a ball into a piece of solid pine *thirteen inches*. When the arrangement for capping is added, it can be loaded and fired at least twelve times in a minute, without any danger from expansion by heat, or of getting out of order by complicated machinery in the stock. It is loaded at the breech by raising from the stock the lower end of the barrel, with an arrangement consisting of four pieces, not complicated, and such that a soldier could take it all apart to clean, and put in order again, without any trouble. The great advantage of this gun is, that while it prevents danger from heat in rapid firing, or an escape of gas through crevices, it furthermore admits of the barrel being bored narrower at the top than at the bottom, and so may contain a ball larger than the aperture at the end, which being forced through, gives the same resistance as the Minié bullets, expanded by the iron wedge, which will carry as far and as true. It is proved by experiments, that this rifle will carry *a mile and a half with a true aim!*' The invention of guns of a similar construction to that mentioned, has lately been under discussion in England; and the present jotting may, accordingly, be worthy of notice among parties interested in the subject.

Ice, as is well known, has latterly become a considerable article of export from the northern states, where it is procured from lakes in winter, not a little ingenuity being employed in cutting it in masses and storing it for commercial purposes. This northern monopoly in the ice trade would seem to have suggested a scheme for manufacturing ice in the warmer regions of the south. If we are to credit the published statement on the subject, the plan has been perfectly successful; and now ice may be made, in any quantity, cheaper than it can be imported from New England. The ice-making machine is the invention of John Gorrie, M.D., of Florida, for whom it was constructed by Boeder at the Chelsea Ironworks, New York. The apparatus is, in reality, a kind of steam-engine, with some peculiarities in its structure and additional arrangements. The following is the account of the machine in the *New York Tribune* for 20th October:—

'The invention consists principally in the addition of an air-engine, so to speak, in which the compressed air may be worked off, instead of allowing it to escape idly into the atmosphere, and in the employment of a suitable liquid to "absorb the cold," and convey it to the freezing water. Dr Gorrie employs two cylinders of nearly equal size, each with a solid piston, and both connected to the same shaft. One of these serves as a forcing-pump for compressing the air, a jet of water being injected to cool down the rising temperature. By injecting a sufficient quantity of water, it is found practicable absolutely to prevent the air from becoming heated more than a very few degrees, the heat of compression being all absorbed by the water, which is allowed to flow away slightly heated. The air thus compressed is next admitted into the second cylinder, by means analogous to the valves of a steam-engine, where it expands itself to nearly its original volume. In this second cylinder, or air-engine, the cold is developed in a degree which would be extreme, and seriously prevent the expansion of the air, but for the injection of a fluid which must be nearly uncongealable, to absorb the cold. The liquid employed by Dr Gorrie, as the most convenient and economical, is salt water, or brine, the cylinder, piston, &c., being all of brass, to prevent corrosion. The brine being thus intimately mixed with the expanding air, attains a sufficiently low temperature, and is allowed to escape from the cylinder into a freezing tank, in which are partly immersed flaring copper vessels containing the fresh water to be frozen. The brine being, by the aid of a small pump, continually withdrawn from this tank, and passed through the expanding cylinder, is kept sufficiently cold to rapidly congeal the water in the thin copper vessels, which are alternately emptied of ice and refilled with pure water, while the power obtained from this expanding engine so nearly equals that consumed in the compressing cylinder, that a steam-engine of very moderate power suffices to keep the whole apparatus in motion, and manufacture ice in quantities sufficient to supply a city in the hottest climates, and in localities the furthest removed from navigable waters, or other convenient means of access, to the ice of our northern streams. Such is the theory of Dr Gorrie's ice-machine, and such, so far as yet experimented, have been the results in practice. The machine has produced ice at the rate of about two tons in twenty-four hours, although a fatal error in the construction—that of providing no escape for the water from the upper end of the cylinder—renders it practically equal only to a single-acting machine, beside endangering the destruction of the machine by the concussion. At the rate of eight tons of ice per day, worth some forty or fifty dollars per ton, and making every reasonable allowance for losses, there can be little reason to doubt that the production of ice mechanically may be made the means not only of cheapening and diffusing this luxury in the central cities and towns of our southern states and of the tropics, but also of opening an extremely lucrative branch of industry to the enterprising mechanics and capitalists who may engage in it.'

Machines for planing, sawing, and otherwise preparing timber, are now so numerous and so ingenious in their application in America, that it is somewhat surprising no English tradesmen import them for use. Among the latest inventions of this kind, are a machine for making mortise joints, and one for cutting

barrel staves, not only with the proper bevel in the sides, but with the required bend; so that barrels of all sizes may now be made with a rapidity which sets hand-labour at defiance. But there is a still grander invention. It consists in the discovery of a method for bending trees of any thickness into shapes adapted for ship-building, and other purposes in which crooked timber is required. The process is commenced by planing off the bark, after which the log is placed in a great oven, and thoroughly steamed or softened. Next, removed to a machine, it is pressed endwise into the required shape; and such is the power of the apparatus, that in the short space of five minutes the strongest oak will be bent into the segment of a circle. The American newspapers speak of this as a 'splendid invention,' more particularly as crooked ship-timber is getting scarce in the States. At New York, a joint-stock company is formed to carry on the business of timber-bending. The extensive buildings of the concern are said to 'consist of a foundry, where will be manufactured all the castings and machinery for bending machines; a mill-house for four machines of the largest class, capable of bending ship-timber of all sizes and curves, for vessels and frigates from the smallest class up to the heaviest 120 gun-ship; and a workshop, where will be employed several bending-machines for furniture and carpenter work. On the first floor, the huge circular-saw, with its appliances, is erected. This saw will cut a tree of 24 inches diameter, and run through a space of 30 feet in 45 seconds. The steam-boxes for steaming 98 pieces of timber, 16 feet long by 12 and 14 inches square, will also be erected on the first floor. The arrangement is such that the tree or log is taken in at one door, carried by machinery to the saw-carriage, and when cut into the required sizes, is conveyed to the steam-box, thence to the bending-machine, where it is bent to the ship-builder's mould, and delivered ready to be put in its place without any further manipulation.' The force employed in these processes appears to be a sixty horse-power steam-engine.

The growing scarcity of rags for paper-making has latterly pressed on the American as well as the English publishing world; and in the States, as here, a variety of articles has been suggested to supply the deficiency. The most successful of these seems to have been the pulp made from shavings of the bass-wood. The bass is a comparatively valueless wood, having hitherto only furnished the thin strips of bass of which the common kind of mats are formed. The discoverer is Mr G. W. Beardslee, of Albany, state of New York, where a number of a newspaper, according to late accounts, was printed on paper made entirely from bass-wood. The pulp is said to be manufactured cheaply—a matter of the first importance, for the real difficulty in the way of such discoveries is the cost of preparation. The Albany *Evening Journal*, the newspaper employing bass-wood paper, speaks approvingly of Mr Beardslee's discovery, and appears to think that the question of a substitute for rags is at length practically set at rest. We venture to suggest that the adaptability of the hop-plant for paper-making, as formerly hinted in these pages, is still undetermined. Experiments, however, are now making on this material, and we hope soon to be able to shew that pulp made from the decayed stems of the hop-plant, now thrown aside as valueless, will answer the important purpose.

Although greatly behind in agricultural operations, the Americans have invented some useful and ingenious machines to be employed in rural labour. Their clever adaptation of the reaping-machine is worthy of all praise; and it may be said, that in some kinds of grinding machinery they are considerably in advance. A cheap kind of wind-mill for farmers is spoken of, we see, as exceedingly meritorious. Another late invention is that of an apparatus called Pratt's Patent Ditch-digger. 'By its aid, one man and two horses have frequently dug 150 rods of ditch, 3 feet deep, in one day; and from 50 to 150, according to the nature of the soil, is considered a fair day's work. The machine consists substantially of a scoop and a revolving-wheel, the scoop scraping, and the wheel carrying up the earth, until at a sufficient height it is tumbled out upon the sides at a little distance from the ditch. Several repetitions of the operation are required before the ditch is sunk to a sufficient depth.' This machine, which we need not further allude to, might possibly be of use in draining operations in England. The attention of agricultural societies is drawn to the subject. The inventor is Mr R. C. Pratt, Canandaigua, state of New York, who, we doubt not, will furnish all needful particulars.

I suppose it is pretty generally known, that a fire-engine wrought by steam power has for some time been in operation in Cincinnati. It is observed from American newspapers, that engines of this kind are now manufactured in Cincinnati for other cities. One lately ordered for Boston is spoken of as having made a creditable display at Baltimore. It is drawn by four horses; steam can be raised in ten minutes, and it throws several copious streams of water, with great force, through the connecting-hose. The height to which a stream can be thrown, is said to be about ninety-five feet. When once set to work, the engine goes on uninterruptedly in propelling water on the fire—a great advantage over the ordinary class of engines, which depend on the manual labour and good-will of the by-standers. The maker of the machine is Miles Greenwood, of Cincinnati. Would such an apparatus not be valuable in London, and other large cities in Great Britain?

Electric-telegraphing, as formerly mentioned, has been carried to great perfection in the United States—a circumstance, perhaps, attributable in some degree to the imperfect system of letter and newspaper postage. An electric-telegraph, of one kind or other, is now established between all the large cities east of the Mississippi; and at present a project for carrying this means of communication across the great western deserts to California, is under public consideration. A still grander scheme, however, is on foot: it is that of forming an electric-telegraph to go round the world. The projector is Mr T. P. Shaffner, editor of the *American Telegraphic Magazine*, who has already made some arrangements with European governments on the subject. Mr Shaffner does not propose to take his telegraph across the Atlantic direct, the breadth of ocean offering serious practical difficulties to a plan of that kind. He designs to carry his line northwards on the American continent as far as Labrador, and thence across the sea to Greenland, a distance of 500 miles. From Greenland, the line is taken to Iceland; and thence it proceeds by the Faröe Islands to Bergen, in Norway. 'After landing in Norway,' says the New York *Evening Post*, 'it is intended to run the line to Christiania, the capital of Norway, and from thence branches to Copenhagen and Stockholm. The Danish government has bound itself to furnish proper connections with the governments on the continent and Great Britain. Consequently, it will not be necessary to run a cable from the Faröe Isles to the Shetlands, Orkneys, and to North Scotland. Treaties with the emperor of Russia contemplate the extension of the line from Stockholm, in Sweden, to St Petersburg, across or along the coast of Finland. By the construction of this section, America will be able to transmit intelligence direct to Russia, and thus establish most intimate relations between the subjects of the czar and the citizens of the United States. Leaving St Petersburg, Mr Shaffner proposes to run his line to Moscow, or connect at the latter place with the imperial lines already in operation; from thence to

Kazan, across the Ural Mountains, into Asia, passing through Orusk, Kolivan, Kausk, Oudinsk to Irkoutsk, near Lake Baikal. This is near the great tea-country in Chinese-Tatary, from whence the Russian tea is brought overland in wagons. The trade in this tea, which is said to be the best in the world, is very large, and the telegraph, it is supposed, will tend to increase it materially. From Irkoutsk it is intended to run the line to the Sea of Ochotsk, either north to Yokoutsk, or south with the Amour river; and thence along the coast of the Sea Ochotsk to Iamsk, and across the gulf to Cape Utkoloka, Kamtschatka; and thence along the Aleutian Isles to Aliaska Peninsula or Cooke's Inlet, in North America. From this point, the line will be run along the Pacific coast to Oregon, and south to San Francisco, California. This range is entirely south of the latitude of St Petersburg, and, in fact, the line can be carried around by the Behring Straits, and be south of the Arctic Circle. From San Francisco, Mr Shaffner proposes to run the line along the best route to the Salt Lake, and thence to the western boundary of Missouri, where it will intersect the existing section of the California line, laid by him a few years ago. Joining the great lines in America, the earth will be girdled with one continuous and unbroken flame of electric light. The consummation of this great enterprise will be productive of consequences which the human imagination strives in vain to realise. It will enable us to communicate daily with every civilised nation on the face of the globe, and many not so civilised; for as soon as possible after the completion of the main trunk, branch-lines will be extended to Japan, Pekin, Nankin, Canton, and other cities of China.' It might have been added, that the chief difficulty in the way of this gigantic undertaking, will be the raising of funds to carry it into execution. How this is to be done in the present financial state of affairs, is not mentioned. W. C.

'BY THE COURT.'

BEFORE THE COMMISSIONER OF EDUCATION THAT IS TO BE.

Insolvent loquitur.—I decline to state my parentage. My father and mother both died while I was quite a child. There were two guardians appointed by my father's will; one of them is still alive. I have no friends to call such—yes, I had at one time, certainly; the real ones mostly I flung from me—the others, when the time came, flung me from them. I was sent to the public school of Weston. I was not a reading boy; if I had been, I should have learned nothing that could help me now. My belief is, that a knowledge of Latin verse would not assist me in my present profession. If I had been pretty clever, assiduous, and lucky, I might have got a scholarship at Weston, which would have kept me at the university—that is to say, if I had been 'on the foundation' there. I was not on the foundation. A scholarship leads to a fellowship, almost certainly. I do not know how many get thus provided for for life at Weston. At a guess, perhaps one in six. If I had been diligent without this good-fortune, I might still have earned my bread as an usher in a private school. I think I get more by my present occupation than I should have done in that case. I am a billiard-marker. (Sensation.) While I was at Weston, even in the lower forms, I had a name for giving breakfast-parties; not to the nicest boys, perhaps, but to the swells. I liked the young lords and rich people; but did not toady them, so far as I remember: it was not necessary, nor was I inclined to do so. In the fifth form we gave frequent 'hangs out,' or 'hang outs,' at the Bear. Lots of wine; lots of game; lots of cigars. Not all the fifth form, nor half of it, but the set to which I belonged, gave these entertainments. We had not much pocket-money—from L.1 to L.10 at a time, perhaps; but everybody ticked us in moderation. My guardian never spoke to me about money-matters until I went to college. I thought my fortune might probably be less than that of my companions. Perhaps I never thought about it at all. My school-bill was always over L.200 per annum, besides my tick. Weston was founded for poor boys. The number of these on the foundation is about one-eighth of the present school. These boys are certainly looked down upon by the other class. They are called by a contemptuous appellation. Both classes, as a general rule, are gentlemen's sons. My guardian wanted me to be on the foundation; I refused for the before-mentioned reason. It is customary to join the school before becoming a gown-boy. The change in my time was very great; there were more hardships of every kind, and worse treatment. I should certainly not have been in the set I belonged to, if I had changed. I stayed at Weston about six years. I left it in the sixth form, and a tolerable scholar. I did not know French or German. I knew no mathematics. My school educational life could not have cost me less than L.1500.

One of my guardians died when I left Weston. There was some dispute about the management of my property then. I was afterwards told I had L.3000 at my own disposal, after all expenses had been deducted. I was persuaded to go to the university; I did not want much persuasion; my opinion now is, that I could not well have done worse. If I had intended to take holy orders, it would have been all right. In the same position, again, I would have got what interest I could for my L.3000, and obtained some small appointment through one of my influential friends. I know nothing of business matters whatever; I was eighteen years of age when I went to Cambridge as a Pensioner; the majority of Cambridge men are Pensioners. Noblemen and Fellow-commoners form the first grade, Pensioners the second, and Sizars the third. There is little difference between them as far as birth goes. The Sizars are, perhaps, better born, as a general rule, than the Fellow-commoners—the former are usually the sons of poor clergymen, the latter of rich traders. Sizarships cannot be obtained without some scholarship; they are worth about L.50 a year, I think—perhaps more. Sizars were somewhat looked down upon; I should say the authorities encouraged it: the Sizars dined after the rest had done, and they had steel forks instead of silver ones: I have heard their treatment in that, and other respects, called 'gratuitous insults' by very many; I call it myself a deuced shame.

Most of my companions belonged to the first of these classes; I could not get out of the Weston set; I did try, but unsuccessfully. I read very hard when I first went up to Cambridge; I paid L.7 a term each to classical and mathematical 'coaches;' they had nothing to do with the tutors of my college. There are three terms in the year. I paid twenty guineas for reading with a coach one long vacation; it was about four months long; and we spent it in the south of France. I don't remember the south of France being very inexpensive: it was exceedingly jolly. Rooms at college cost, upon the average, L.9 or L.10 a term. I did not like my remaining guardian, and his home was not pleasant to me. He seldom asked me there, and I went still more rarely. I had

XUM

to keep myself, of course, all the year round. We are resident at the university about half the year; it makes all the difference if you have a home to go to or not; it cost me the first year about L.340. I don't think it could have been done much under. There were a good many men at Cambridge precisely in my situation: some of them are better off than I am now, some of them worse. One, to my certain knowledge, sweeps a crossing. A man that has a home to go to, living prudently, need not spend more than L.150 a year at college as a Pensioner. I never knew one who spent so little, but I believe it possible. I do not believe the men who write letters to the *Times* upon this subject; yes, I should think they were very like 'Black Swans.'

From my change of life, the second year I knew most sets of men. I went in for a scholarship, and did not succeed; my non-success partly prevented my going on reading, and there were a thousand temptations. I became a fast man. My great expenses were for cook's bills—over and above what I could procure from the college-kitchens—for horse-hire, for wine, and for cigars. The figure against me for cigars is L.260. I did not smoke half of them myself—not one-tenth part of them, I should imagine. I bought no jewellery. My card debts were not heavy; they were all paid ready-money. I did not lose much at betting, but I kept a horse to run at 'the Valley' races. I have seen roulette played in a man's rooms, but very rarely. Everybody bets upon the boat-races except the reading-men, and they bet upon the places in the wrangler's list. I was a good deal plagued to buy things I didn't want, and to subscribe to things I didn't care for. I always subscribed something; I didn't always buy. The man that was hardest on me at the smash was the most pressing that I should take his goods. I had an immense deal of fun for my money: the most expensive larks were certainly not the pleasantest.—[The Insolvent here grew discursive and rambling—called to mind a certain water-expedition to Ely and return by moonlight; also, some lazy ways he seemed to have had of lying on his back in a skiff, and drinking claret out of a pewter while his friends sang to him; also, a habit of listening, in the same position on the river-bank, with a cigar in his mouth, to King's College organ in the May terms; also, falling in love—— Here he was called to order by the Commissioner, and seemed to be more ashamed of his last admission than all the other evidence against him put together. Examination resumed.]—I don't remember doing anything good with my money all that time. I don't exactly know what you mean by 'good.' I subscribed to 'the Drag.' I don't know who was the senior wrangler in my year: I don't care. I know who won 'the sculls.' I began to be unhappy towards the end of my third year, with thinking what was to become of me when I had spent all. I had about spent all then, but I didn't know what I owed. I never borrowed money of the Jews: I tried. (Laughter.) I wrote to my guardian, and told him the whole truth. He said he washed his hands of me, and recommended me to become a light-porter. He is a clergyman of the Church of England. He is not a rich man, to the best of my belief.

I thought some of my noble friends would use their influence, and get me something to do; they might have done so without trouble: they did not. Some of them are in the House of Peers, and I am a billiard-marker. I think they are greater blackguards than I; I think I should have behaved differently had I been in their place and they in mine—Heaven knows.—[The Insolvent was again reminded that he was not to luxuriate in his private sensations before the court. He bowed; but for some time afterwards seemed much affected.]—More than one gave me small sums of money, with cold words enough, and no one twice. They had no suspicion of my position during any time of our intimacy; perhaps it was more companionship than intimacy, but it was very close companionship. I do not think I deserve my fate: I was a very great fool. I am now only three-and-twenty. I took an ordinary degree at the university. I read six weeks for it pretty hard: I read, because I heard to be a B.A. might help me to something. I consider now that the value of my B. A.-ship was L.4200 *minus*. I cannot tell what were the 'subjects' for my degree: one never can after 'cram.' I do not know so much as when I left Weston. I never learnt anywhere any useful knowledge of any kind whatever. I qualified myself at the university for my present post, that is true. I used to play pool there eight hours a day. 'Red on white, yellow's your player,' never tired me as an amateur; but I get very weary of it now. Sometimes an old acquaintance stares at me as he comes into the pool-room, and says it's a wonderful likeness, or asks who the devil I am; I never tell them who I am. I sometimes conceal my play when I have a young hand to deal with, in order to get money on; I won't swear I never did so towards the end of my career as a gentleman. Yes, it is very hard to say where the gentleman ends and the billiard-marker begins. Deducting all extravagances, I think my nine years' educational life could not have cost less than L.2500. I swear that I have been rendered fit for nothing but a billiard-marker. (The committee adjourned at this point in some confusion.)

THE RADICAL MEMBER ON COMMISSARIAT SERVICE.*

Men look through the *far-seeing* tube—that is, the *telescope*—and observe, out in the immensity, numberless worlds scattered like sparkling seeds in the fields of space; they look through the *small-seeing* tube—that is, the *microscope*—and perceive, in some film of stagnant water, myriads of living creatures, that are each so small they are invisible to the naked eye, and that are yet each perfect organisms in themselves, able to feed, to grow, and to reproduce their kind. The sage who observes these things, and the monad that lies in the stagnant film beneath his glance, unlike though they seem, are in truth near relatives. Man is merely a colony of monads. In his body, a multitude of living vesicles unite their forces and work for a common end. Some build up his bones, some string themselves into his muscles and nerves, and some compose the other organs that constitute the remaining portion of his frame. There is no nook anywhere in the human body, in which microscopic investigation does not detect traces of vesicular presence, and these vesicles are all, more or less, living ones; for new generations of them are continually coming into being, and old generations of them passing away.

But living bodies are always in a state of internal change, and hence require frequent supplies of food. As the worn-out substance of their organs is removed, new material is required to take its place. The monad vesicle that floats in stagnant water, draws from that water the nourishment it needs. It drinks in through its general surface nutritive matters that are suspended in the liquid. When, however, a multitude of vesicles are united together in a common mass, the same mode of supply cannot be any longer made available. Men would make a very bad hand of feeding themselves by their skins, even if they were always

* See *The Radical Member of Society* in No. 30.

swimming, like the monad, in liquid nourishment. So soon as a complex living body is to be built up and organised, an especial commissariat service is planned for the management of its supplies. This commissariat service, in the human and in other high animal organisations, is performed by the circulating blood.

When food is taken into the stomach, it is *digested*—that is, *dissolved;* converted into a liquid substance, which can be easily sucked up through the minute pores that are dotted all over the inner surface of the digestive organ. The liquefied nourishment that is drunk up, is conveyed away by a system of tubes laid down for the purpose, until it is finally poured into a hollow reservoir placed in a central position. This reservoir of nourishment then becomes the great 'core' of life—the source whence strength and spirit are issued to every crevice and fibre of the frame. Our Saxon forefathers called the strength or core of anything the *herz*. Like dutiful children, we follow in our forefathers' steps, and we term the source whence the life-blood is made to flow, the *heart*.

The heart is a hollow bag made of thick and strong fleshy walls, which are prolonged from its mouth into capacious flexible pipes, that run off in dividing and multiplying branches to all parts of the system, very much as the rootlets of luxuriant plants do in the ground. But of these pipes there are a double set—an issuing and a returning series. When the anatomists of olden time first pried into the secrets of the animal body, they observed that one set of these pipes was always empty after death; and hence, in their simplicity, they conceived that it must be their office to carry impalpable spirit, or air; and they accordingly named them *arteries*, from a Greek word which signifies receptacles of air: the other set they always found to be like hard and rigid cords, in consequence of their remaining filled with clotted blood; these they therefore designated *veins*, from a Greek word for fibre. The same observers noticed that both arteries and veins branched out more and more, until they became very small; and they tried hard to find out what became of their terminations at last. This, however, they failed to do, until, in 1661, Malpighi discovered what every one who possesses a microscope and can catch a frog may now see for himself. The arteries and veins end, at length, in a net-work of delicate vessels, each one four times smaller than the fibre of the finest wool. These vessels are so minute, that from 2000 to 4000 of them might be laid, side by side, on a flat surface, within the breadth of an inch; and they are so abundantly distributed throughout every part of the body, that the point of the sharpest needle cannot be inserted anywhere without wounding some of them, and letting out their crimson contents. They are termed hair-like, or capillary vessels (from *capilla*, the Latin word for a hair). If all the other structures were stripped away from the capillary vessels, the general form and outline of the body would still be maintained by their interlacing meshes; just as the form of a leaf is preserved by its skeleton of intermeshed fibres, after the skin and soft structures are removed.

When the transparent web that unites the toes of a frog is stretched tightly over a hole in a flat piece of wood, by means of a couple of needles thrust through the skin of the toes, and is examined by the aid of a microscope, it is seen to be filled with these interlacing capillary vessels. The terminal branch of an artery may be noticed coming down into the web, and then spreading out into a net-work of delicate tubes, that cross and open into each other in all directions, and at last get collected into another larger branch, that runs out from the web as a vein. The artery and the vein are at once distinguished in this case, for the motion of the blood can be plainly discerned in the vessels. Streams of it are seen pouring down the arterial branch, dividing themselves among the smaller capillary channels of the web, and then setting back out of the web through the vein. The capillary vessels connect the arteries with the veins. When the hollow heart contracts its cavity, the blood which it contains is squeezed and jetted out through the arterial trunks and branches, and through the meshed tubes of the capillary vessels that spread themselves out in every structure, just as they do in the web of the frog's foot. When the heart dilates after its contraction, the blood is returned into its cavity from the capillary vessels, passing through the branches and trunks of the veins. The heart of a man throws five or six table-spoonfuls of blood into the arteries at each stroke, and it pulsates somewhere about seventy times every minute. In this way, not less than thirteen poundweights of blood are distributed every minute from the heart, in supply of all the various wants of the system. At every heart-pulsation, blood flushes through the sluices of the body, suffusing each structure with its crimson streams, as the cheek is suffused with the blush.

Blood, which is formed out of digested food, for the nutrition of the body, and which is then pumped from the heart through the branching arteries into the widely distributed capillaries, is kept liquid by the influence of nature's great solvent—water; of which there are seventy-nine pounds in every hundred of blood. The blood, indeed, is water suspending in itself one-fifth of its own weight of other matters, that are, most of them, in themselves of a nutritious nature. Now, when this nutritive fluid is closely observed, as it flows on in its circulating course through the capillary vessels of a transparent membrane, such as the web of the frog's foot, it is seen, if the examination be made by a powerful microscope, to consist of two parts. The greater portion of it is made up of a thin transparent liquid, that moves on through the capillary tubes, like water in branching pipes. This fluid portion is so transparent, that its presence would not be detected by the eye, if there were not something mixed with it to make it visible. But it rolls along in its streams, a myriad of little round bodies, that are perfectly discernible, in consequence of being opaque instead of transparent. These have been termed the little bodies, or corpuscles of the blood, (from the Latin word *corpusculum*). The branching streams of the blood are entirely filled with them. Hundreds and thousands crowd on, through the delicate tubes, following each other with an unceasing flow. In some of the vessels, they run three or four abreast; in others, they move in single file, and often even elongate themselves, to be able to squeeze through the narrowing channels. Sometimes one may be noticed to stick for a little time, until pushed on from behind. The blood-corpuscles of frogs are about as wide across as the finest hairs in wool; some thousands of them may be laid along in a line within the length of an inch. But the corpuscles of the human blood are three times smaller than this, and those of one of the deer tribe, twelve times smaller. Fifty thousand human blood-corpuscles may be laid flat on the head of a small pin, and not less than three millions of them are contained in a drop that may be taken up on the point of the finest needle! Who, then, would undertake to say how many millions there are coursing along through the branching channels of a human body at any one given instant, the entire quantity of blood, in such a human body, being at least eighteen or twenty pints?

But these incalculable myriads of little bodies are bent on very important business, as they hurry on through the branching channels of the living frame.

They are all of them 'Radical Members' of the community—distinct organisms, belonging to the system, but doing detached service. They constitute, indeed, its commissariat department, so far as the mere active powers of animal life are concerned. Each little microscopic corpuscle of the circulating multitude is itself a living vesicle, formed of delicate membrane, and containing a peculiar fluid which it has selected from the liquid mass of the blood. The vesicle wears a very curious shape, which, small as the body is, is readily discerned when powerful microscopes are employed in the scrutiny. It is of circular outline, but is flattened in one direction, and has a little dimple or cup impressed on each of the flat sides. It looks very much like a pair of pigmy watch-glasses, placed with their edges together, and with the middle portion of each of the pair indented or battered in. If a little blood from a pricked finger is received in a drop of water, and is then placed between two pieces of glass, so that a very thin film of it may be examined, the flattened corpuscles will be discovered lying in the film by thousands—some with their broad round faces, and others with their thin edges, turned up towards the eye. The human blood-corpuscle is flattened to such an extent, that it is about three times as broad as it is deep.

What, however, is the liquid which these flattened vesicles of the blood contain? It is a very important and a very peculiar substance. There is nothing else like it anywhere in the body. It is, in the first place, of a deep red colour. The redness of the blood is entirely due to the contents of the corpuscles. The wall of the vesicle is transparent, so that the substance within comes clearly into sight. That substance, therefore, being red, and the vesicular corpuscles being very abundant, and crowded very closely together, the entire mass of the blood seems to possess the same colour. Neither the clear liquid in which the corpuscles float, nor the transparent walls of the corpuscles themselves, make any impression upon the eye; but the red contents of the corpuscles are everywhere seen shining through these. The red liquid is evidently the product of the life of the corpuscle. The living vesicle selects the materials for its composition out of the fluids of the blood in which the corpuscles float. The great office the corpuscles fulfil in the economy is, indeed, the preparation and conveyance of this rich red substance. But for what purpose do they prepare it, and whither do they convey it? They carry it to the muscles, and nerves, and brain—the grand instruments whereby all the higher faculties of animal life—those, namely, of motive-power, sensation, and thought—are rendered effective: they prepare it for the nutrition of those instruments. The membranous blood-corpuscles make the red liquid they contain, and carry it with them during their circulation through the branching channels of the system. But in the delicate capillary vessels that are meshed about the fibres of the muscles, and the tubes and vesicles of the nerves and brain, they give up their manufactured treasure. In these capillary vessels, the red product of the blood-corpuscles becomes transmuted into muscular and nervous substance, and so sustains the most important of the operations of life. So important is this influence, that whenever there is a great abundance of corpuscles in the blood, great muscular and nervous energy are present too; but whenever the blood-corpuscles are in deficient quantity, and the nutritive liquid is watery and pale, the animal is languid, weak, and unable to make any sustained effort. In this sense, then, it is that the blood-corpuscles must be viewed as performing the commissariat service of the system. They furnish the supplies that keep up the great forces, to which all the rest of the organisation is subservient, and for the production of which the entire organisation has been planned.

The blood-corpuscles exhaust themselves by their own efforts in the work of organisation. So long as muscular and nervous action is going on in any animal, millions of them are giving up their rich contents to the acting organs, and then dying and passing away; so that if fresh corpuscles were not formed in the same ratio, there would soon be a dearth of them in the circulating fluid, and the muscles and nerves would get starved. Myriads of successive generations of blood-corpuscles are produced in the blood of a living animal, just as myriads of successive generations of living animals are called into being on the earth. During the earliest stages of life, the blood-corpuscles are produced by the spontaneous division of corpuscular vesicles of like nature to themselves. But in the more advanced development of the frame, they seem to be made directly from some of the constituents of the food. They first appear in the midst of the dissolved nourishment, as it is on its way to the blood, in the form of colourless globular bodies; they then get coloured by slow degrees, and become flattened, and at length are changed, through some mysterious, and as yet imperfectly understood agency, into perfect blood-corpuscles. Only this much is certain regarding their formation—a generous diet leads to a very rapid augmentation of their numbers, and so also does the administration of chalybeate medicines. It is a remarkable fact, that the colouring principle of the red contents of the blood-corpuscles contains within itself as much as seven per cent. of iron.

The corpuscles of the blood float in a clear transparent liquid, which is called the blood-liquor, or blood-lymph (from *lympha*, the Latin word for water). This lymph constitutes the larger proportion of the blood. From eighty-five to ninety pounds in every hundred of blood are lymph, and the remaining ten or fifteen pounds are corpuscles. This lymph, however, is not pure water. The water, it will be remembered, only makes up seventy-nine pounds in every hundred; there is, therefore, from six to eleven pounds of something else in the eighty-five or ninety pounds of lymph. The blood-lymph is a somewhat thick and tenacious liquid, although freely movable. When small wounds are made into the blood-vessels, they soon get closed and glued up by means of something that is deposited out of the lymph as it flows through them; this they would never do if the escaping lymph were water alone. The thickening and adhesive ingredient is a peculiar principle, that is kept dissolved away in the lymph, so long as it remains circulating in the living vessels, but that separates itself from the thinner fluid so soon as it escapes from the body. When blood is allowed to flow from a vein into a vessel held to receive it, and is then left undisturbed, it rapidly loses the appearance of a rich red liquid, of uniform consistence. A dense clotted mass gradually collects on the surface, and floats above a thin whey-like liquid, which is then termed the *serum* of the blood (from *serum*, the Latin word for whey). The floating clot is red, and contains all the corpuscles; but these do not adhere together of their own accord—they are caught and entangled in a series of cobweb-like meshes, that have suddenly formed in the blood. These meshes are made of a buff-coloured substance, that has arranged itself in the form of delicate threads, crossing each other in all directions; and that, in fact, is the adhesive ingredient of the blood-lymph, separated from it in a more consolidated condition. On account of the thready form in which this ingredient arranges itself, when it is thus consolidated, on the coagulation of the blood, it is termed *fibrin*; the term being derived from the Latin word *fibra*, which means a thread.

Fibrin is the formative or nutritious portion of the digested food advanced into the final stage of preparation for organisation. It is nourishment placed in such a state that the slightest possible addition of inducement

is sufficient to convert it from nourishment into structure. Its spontaneous coagulation into the thready meshes of the blood-clot is no doubt a species of rude fabrication. The red liquid contained in the corpuscle has higher capacities in itself than fibrin, for it makes muscle and nerve, which the fibrin cannot do; but it has at the same time less readiness, for it needs extraneous assistance to enable it to accomplish its task. It is carried by the living corpuscles, and worked up into structure by them, so to speak. The fibrin, on the other hand, seems to be able to effect the arrangement of its own molecules without foreign aid. It consolidates itself spontaneously, as has been seen, so soon as it is released from the channels of the circulation; but, while retained within those channels, it also suffers a like consolidation in certain positions. It builds up various structures, of the nature of tendon and gristle, which are designed for mechanical rather than vital services. These structures are endowed with so low a kind of life, that they need material for their renovation, which is prone, in the highest degree, to take upon itself the solid and organised state. The more highly vitalised muscles and nerves are able to appropriate and work up substance that has far less marked tendencies of a formative kind. Fibrin is the main *plasma* of the nutritive stream—its thickening, moulding, and gluing material. It mends accidental rents and gaps wherever they occur; it plasters itself round fabrics that require renovation and strengthening, but that have very little independent constructive force in themselves; and it sticks together webs and films that need to be rendered adherent. But at the same time that it does all this, it contributes to make the blood readily movable in its narrow channels, for it has been ascertained that slightly viscid liquids run much more easily in pipes than the purest water can. Whenever there is too small a proportion of fibrin in the blood, that liquid continues to flow for hours from the slightest wound, and often even escapes spontaneously through the minute undiscoverable pores of the capillary vessels. In all states of fever, properly so called, and not dependent upon any local mischief going on in some confined portion of the system, there is a deficiency of the fibrinous principle in the blood, and an accompanying slowness of capacity to effect the repair of any accidental injury or imperfection. In an opposite class of diseases, there is always too much fibrin in it, and the circulating fluid is then too thick, and too prone to stagnate and cause obstructions. This is the case in all rheumatisms and inflammations. In ordinary health, about two parts in every thousand of blood are pure fibrin; but in inflammation, the proportion rises to above five parts in every thousand. At one time, physiologists thought that the too great abundance of the adhesive fibrin in the blood caused inflammation, but they now know that it is the inflammatory condition that causes an increase in the quantity of fibrin, and that it is only certain of the secondary results of inflammation that can be said to be due to its augmented quantity. The fact, however, that in fevers there is always too little fibrin in the blood, and in rheumatism and inflammation too much, is of high practical importance, because it points to a certain broad feature in the management of these cases. In inflammations, only such food should be taken as will afford but a sparing supply of the elements out of which fibrin is formed; but in fevers, especially of a low and uninflammatory type, the object should rather be to use fibrinous food, and to elevate the formative powers of the blood. Often, however, in such fevers, fibrinous food is of no use even when it is admitted into the system, because the peculiar infectious poison that is then present in the blood, has the power of preventing the conversion of such food into the fibrinous liquid that can alone circulate through the vessels to any efficient reparative purpose. How the adhesive or fibrinous portion of the blood-lymph is formed, is not exactly known, but there are tribes of little colourless corpuscles mingled among the red ones, that seem to have something to do in the matter; for whenever the fibrin increases with undue rapidity, an augmented number of colourless corpuscles may also be observed. It is probable that these colourless vesicles select, from the other constituents of the blood, such elements as are essential to the formation of fibrin, and then burst and mingle their fibrinous contents with the general mass of the blood-lymph; that, in fact, they make the adhesive and formative principle of the blood, just as the coloured corpuscles make the especial food of the more highly vitalised muscles and nerves.

Blood consists, then, of a myriad of minute, microscopic living vesicles, floating in a clear lymph, possessed of singular adhesive properties, which are due to the presence of a fibrinous substance dissolved away in it. Both the crimson contents of the corpuscles, and the fibrin of the lymph, are formed in the blood out of some of its other constituents. There must be something in the blood which feeds the corpuscles and the fibrin, just as the corpuscles and fibrin feed the muscles, nerves, and other structures. The red liquid of the corpuscles, and the lymph of the fibrin, are the finished products of nutrition, quite ready to become living organisation. But there is also a crude material in the blood, out of which these finished products are manufactured. This crude material remains in the clear serum after the fibrin and corpuscles have separated themselves therefrom, by the process of spontaneous coagulation. If a quantity of clear serum be heated to the temperature of boiling water, the remaining nutritive principle will be seen to fall down to the bottom of the containing vessel, as a quantity of white flaky substance, that looks very much like white-of egg mixed with water, and then caused to coagulate by heat. It has been found, indeed, that it is of a strictly identical nature with white-of-egg, and it has been thence called *albumen*, which is the Latin name for white-of-egg. About four pounds in every hundred of blood is this crude albuminous principle. Albumen is not made in the blood, like fibrin and the red liquid: it is introduced into it ready made. It is prepared in the vegetable that forms the food. It is, indeed, merely that food digested and rendered soluble.

But the serum contains, in addition to this dissolved albumen, certain mineral and saline matters, also held in complete solution in its water. About eleven ounces in every hundred pounds of blood are inorganic substances of this nature. They are all of them, also, rough materials, intended to be mingled in very small proportions with the various fabrics that are built up out of the blood; but there is this distinction between them and the albumen: each of them is designed for some separate office in the economy, while the albumen furnishes its own substance, either through the blood-corpuscles, or through the fibrin of the lymph, to every part of the frame. There is among them, lime, that is to go to harden the bones; potash, that has to help to form the flesh; phosphorus, that has to aid in making the nerves and brain; and soda, that has to assist in the fabrication of bile; to say nothing of sulphur, salt, and yet three or four other analogous bodies, that are essential, although of subordinate use. Blood, also, has in itself, besides the salts and albumen, that are the rough material of fabrication; the fibrin and red liquid, that are its more finished plasma; the living corpuscles, that are its operatives in the work of preparation; and the water, that serves for the transport of the whole—small quantities of an oily fuel, that is employed in the production of heat. The oily principles of the blood are formed out of the starch, sugar, and fat of the food, but they are constantly being burned off in a smouldering way beneath the air-blasts of respiration. They, therefore, never accumulate to any very great extent

in the circulating liquid. They generally amount to about two parts in every thousand of blood. If at any time they accumulate in it beyond this proportion, they are drawn off and stored away as fat, that may again be drawn upon at any future need.

A COMMUNAL FÊTE.

Posters, like planets and other bodies that make a display aloft, exercise an attractive power in proportion to their magnitude. There are dirty little posters, from which you turn your head aside with the same disgust as if you had trodden on a reptile; there are others, covering the gable-end of a house, and blazing in letters of yellow, green, red, and blue, which absorb your faculties the moment you catch sight of them, and hold you in submissive admiration at their feet. Exactly such a magnificent extent of wall-bill fascinated my gaze on the first day of June last. It waylaid me at sundry corners; it was pictured on my brain when I shut my eyes; it promised sights I had never seen; it suggested sports I had never heard of; it reduced the price of railway-tickets, inviting you with a touching appeal to your pocket; and at last its siren voice prevailed. I yielded to the seductive poster, and followed its guidance, joining a pack of pleasure-hunters, who rushed full-cry after their fleeting quarry.

In fact, a two days' fête was in view; and even if, after an eight-and-forty hours' chase, real pleasure might be as far from us as ever, circumstances must be very untoward if we could not have a little fun by the way; so off we started, following the lead of the well-known 'Chemin de Fer du Nord.' On we went, over mead and marsh, past forest and hill, through a country growing ever richer and richer. Corn, cabbages, clover, and hops, became more and more luxuriant, till the evening-star began to shine so brightly that other objects were but indistinctly visible. The fiery-headed, many-jointed serpent, which people took for a railway-train, stopped, and disgorged a portion of its prey, and left me stranded in the town of Lille.

L'Ile—in olden time, The Island—as we might correctly write it, is a hard-working town, which for many centuries past has been equally divided between war and business. Perhaps I should say it has combined the two, and carried on both concerns at once. It is highly fortified, with a citadel of frightfully impregnable reputation, and it has also outworks of flax-spinneries and sugar-refineries, which earn back again in a peaceful way the money squandered on military machinery. It has useful canals and a noble Champ de Mars; a horrible arsenal, and an admirable museum. In one direction, its two industrious daughters, the towns of Roubaix and Tourcoing, do immense credit to the maternal example by their Jacquard-looms and appliances of other manufactures; and if you walk through the southern suburb of the town, the incalculable number of mills, all madly turning round the same way, are enough to give you the vertigo. You may see all this, and more, at a glance, by mounting the belfry of the Hôtel de Ville, from which it is the fashion for strangers to look down and speculate whether it leans on one side or not, and also whether it rocks during a hurricane; and then you ought to descend and visit the subterranean world in the Rue des Etaques and the quarter of St Sauveur, where 15,000 inhabitants dwell in cellars. But whether above ground, or whether beneath it, few folks at Lille lead an idle life: therefore have they the greater need of a holiday; and when such a treat does fall in their way, they take care to make it a complete one.

On Sunday morning, the 4th of June, I sallied forth from mine inn, after the wise precaution of putting myself on the right side of breakfast. The Grande Place was full of people, hemmed in by the whimsical old-fashioned houses. Almost every shop—of course, they were open—had its sign, pictorially representing the business when such was possible; but the confectioner, who had appropriately chosen 'Exquisite Tastes' as his escutcheon, would puzzle even Leech himself by giving him an order to illustrate it. 'Real Cheapness' would not be a much easier subject. 'Providence,' with a picture of the Deity, as the landmark to a draper's shop, rather goes against English ideas of reverence. 'The Badly-guarded Girl' is suggestive of a wood-cut, as it has already been of a nice little ballet. Signs and wonders must not delay us long, for religion and gaiety are the order of the day. It seems to me that the former, however, if not hurried over in double-quick time, must have been confined to a service of matins. The procession of St Sacrament was performed at an early hour, and is over, although the street-decorations along its passage—the arches, the temporary altars, the garlands, and the draperies—are not all yet entirely dismantled. The Host reposes upon the altar, and the white-robed virgins, communicating for the first time, have flitted to their respective homes. Even the clergy have made themselves scarce. Church-ceremonies being duly celebrated, secular pastimes now take their turn.

The Great Square—really the irregular oblong—is the place of meeting, the drawing-room in which Madame Lille receives her visitors. There every native and stranger assemble, to proceed processionally to the Champ de Mars, or esplanade. At the early hour of ten, the cannoneers of the National Guard, the sapper-pumpers or amateur firemen of the town, the detachments from the garrison, the companies of archers, cross-bow shooters (arbalétriers), and ball-players—these, the principal performers in the spectacle, have a little private preliminary talk in the courtyard of the Hôtel de Ville. They make their exit at beat of drum, and then passing through the crowd in the square, betake themselves in long, long file to the open space where the sports are prepared. Bands of music are not wanting, and almost every company had its own private drummer.

The drum—the national instrument of France—is what the harp is to the Emerald Isle, and the bagpipe to the Land o' Cakes. Funerals, auctions, martial exercises, weddings, puppet-shows, proclamations, insurrections, incendiary fires, cures performed by travelling-quacks, exhibitions of fat girls and learned pigs—not one of them takes place decorously without beat of drum. Where all the drummers came from who performed their fascinating solos that day at Lille, none but themselves can form the slightest guess.

The main article of costume is the blouse, girded or sashed in various style. And here let me observe, by the way, what a capital uniform is a simple blouse, or short slop-frock, with the trifling aid of a bit of ribbon, or a strap or two of shining leather. Trousers of the same specific colour complete a neat and convenient dress. Some companies wear the common *casquette*, or cap, especially decorated with a thread of gold-lace; others have the graceful slouch-hat of felt, with a black feather drooping on one side. Some few companies get themselves up, as gentlemen, in full suits of black, with tight white cravats. This does not answer at all, and would be snobbish, but for a few gold chains and medals, in addition to the weapon in hand, which barely saves them from looking like mutes in hired

suits of mourning. Some have smart quivers strapped across their shoulders, and some simply carry in their hand the single arrow allowed them to shew their skill with. These companies and their drummers are by no means all French. Belgium is fairly represented in the archery-gathering; for the game of bowl especially, the foreign competitors are numerous. Altogether, the societies present amount to something like fifty in number. Few companies march without their officers, their drummer, and their silk or velvet flag, richly embroidered with threads of price. Add to all these public and common property gewgaws, the personal medal, the rosette, or the silver bird, hanging in front of the shooters' breast, in honourable testimony of their skill. And then the line is here and there broken by men bearing aloft on poles the various prizes that are to be shot for to-day; medals, and silver spoons and forks glitter on high, making many an archer's mouth water, if not for his dinner, certainly for the tools to eat it with. The interminable cortège, accompanied by a rabble of admiring friends, now moves in a slow and orderly manner along the streets, to find elbow-room and an open area on the esplanade of the Citadel.

What a strange feeling of gregariousness is that which impels you to follow in the wake of a multitude! As the stream of human beings flows away, you are drawn, by powerful animal magnetism, to add your own individual unit to the grand total which you perceive in motion. But stop a while; we have plenty of time. There is one notable sight which merits a visit before we quit the market-place. Observe that florid red-brick building, highly decorated with carving and scroll-work; that is the Bourse, or, as we should say, the Exchange. Within its central court and cloisters—for all the old Exchanges in Europe seem to have been built on the one original Spanish or Moorish plan—within that building (which you may have seen delineated in some of Watteau's pictures) a flower-show is to be held to-day and to-morrow. An exposition of plants, under the superintendence of the Horticultural Society, and aided by a money-grant from the municipal treasury, has been got up in the galleries of the Bourse. It is open on Sunday from ten in the morning till six in the evening, and does not close finally till three o'clock in the afternoon of Tuesday. Admission is gratuitous. There is no need to put your hand into your pocket; you have only to walk in at one door, and out at the other, as soon as you have stared your fill. The visitors are supposed to have already been to church, to have heard mass, and taken part in a Roman Catholic ceremony which is held to be an act of devotion. But, 'Nothing to pay!—no tickets!' cries a fair critic. 'What a dreadful mixture of company there must be! How low, how vulgar! *I* wouldn't go there for ever so much!' I will, pretty lady, for nothing at all. Come; take my arm for a couple of minutes. The streets have all been neatly swept this morning by the female sweepers, preceded by their attendant water-pourers. Be persuaded; it is only a step.

Well, now that the ice is broken, what could be politer than the bow with which the official, in smart cocked-hat and spruce moustaches, lifted the crimson curtain which serves for door, to allow your honourable daintiness to enter. Look round: this is not Chiswick, nor the Royal Botanic, but it *is* a fresh and lovely bouquet, garnished with a few curiosities. The anemone-flowered white rose, from China, is not common; that blazing clump of azaleas would be called good anywhere; the whip-cactus, trained peacock's-tail-wise, and displaying some hundred rosy blossoms, is not a common specimen; and the little white dish standing up in the corner, containing eight or nine different sorts of garden-radishes, really makes me long for a slice of bread and butter. The double-blossomed furze, grown as a standard in a pot, evidences the power of art when applied to homely and intractable subjects. Can anything be more beautiful and striking than its dense, golden, honey-scented head? And observe the power of novelty, as manifested by the throng collected around that miniature collection of succulents—the little *plantes grasses*, or fat-plants, as they call them, with which *we* are familiar in Covent-Garden, and elsewhere. Note, too, what attention is bestowed by the crowd on those flower-paintings, both in oil and water colours, which hang on an open space of wall. Listen: the people are talking about patterns for dresses and professional designers. I should not even wonder if the very becoming muslin which you wear to-day was a bright thought struck out by some gratuitous horticultural show. We now pass under another crimson curtain, and are no longer in the Bourse.

We are on the Champ de Mars, in the midst of the bustle. Bang! go the cannon, firing away at a *cible*, or target, placed half-way up a loose mound of earth that is piled against the fortification. Ah! my good fellows, look as sharp as you will, you cannot see the cannon-ball fly through the air, although the smoke, the report, and the scattered sand where it strikes, are plainly perceptible to the senses. Pop, pop, pop! go the muskets and rifles. Happy the man who hits the bull's-eye. His success is greeted with a waving flag, even more flattering than a silver fork and spoon. In the midst stands the butt of less noisy projectiles, the *perche*, a tall mast some hundred feet high, surmounted at the very tip-top with branching ironwork, each iron carrying a little wooden bird as big as a thrush, and altogether something like seventeen in number, to be shot at by the companies of archers. He surely must be a capital marksman who manages to dislodge from its metal-tree any one of those curious ornithological specimens. Or is it done more by good-luck than by skill? I almost think so. Each company enters the enclosure in a party by itself, and each man is allowed but one single shot. He plants himself at the foot of the mast, and shoots vertically upwards at the unflinching prey. Yes; take good aim, and bend your bow well. Whiz!—it is off. A laugh in the crowd; that *coup* would not do at all.

He shot at the steeple, and missed the parish. Patience! that accident is much more provoking—to have one's arrow hit the iron, and then glance sidewise away from the bird. The whole company have had their turn, and not one of them has touched a feather. Yet there is no want of vigour to be complained of, either in power of bow or muscle; the arrows cannot rise in the air to a less perpendicular height than 250 feet. And what energetic attitudes to display the beauty of a manly frame! Compare with this tension of soul and body, the elaborate twistings of a masculine opera-dancer: the only comment I can make on such a contrast as that, is a simple and idiomatic 'Bah!'

The cross-bow gentlemen seem to have a better chance, their wooden birds are as big as ducks, and the mast is not half so high as the other; but it is a less graceful and exciting sport, depending more on skill, coolness of aim, and, probably, on perfection of the weapon. To me, the contest is a dull affair. Let us turn, for a change, to that Merry-go-round, where fiery coursers and luxurious open carriages, all sheltered beneath a wide-spreading tent, are revolving to the music of a barrel-organ. It is delightful to watch the infantine glee with which full-grown persons, adult men and women enjoying the rights granted to them by the Civil Code, thrust their feet into their stirrups, settle themselves on their side-saddles, and so take a sou's-worth of twisting and turning.

The game of ball, on the other side of the water, is not the kind of thing we are used to at home. It might

be a nine-pin ground; but large wooden birds, instead of pins, are still the favourite object to aim at. At one end of the enclosure, a horizontal wooden bar is stretched, some ten or twelve inches above the ground. Suppose it a spit before a kitchen-fire, which toasts, instead of roasting its joints. The spit is well garnished with plump wooden game, each tightly transfixed through the body by a cleft wooden pin, which, in fact, acts as a retaining spring. The object of the player is to hit the bird with his ball, and so knock it off the spit into the imaginary fire. But the cleft wood holds it on so firmly, that many and many a blow must be given, before the tempting fruit will fall from the branch. It is clear that the latest bowler has the best chance of success, by reaping the benefit of his predecessors' efforts. The last straw breaks the camel's back, the last drop of water makes the cup overflow, and the last touch displaces the bruised and battered bird, allotting the prize generally to the very player who really has done the least to deserve it. It is an unfair game, though true to the course of worldly things. One man uproots a forest of stumps; another comes and sows it with a crop of wheat. One man directs the public taste, and instils new ideas into the public mind; another, following far at a distance with the materialities, pockets all the profit, and sometimes all the honour.

But time glides swiftly away, while we are idly gazing at these heterogeneous shows. The afternoon is already advanced; let us march to another part of the town, and watch a less dignified mode of rivalry. We soon approach the Place de Réduit; but long before we enter it, we can hear uproarious shouts of laughter. The place is an oblong plot of open ground, close to the outer fortification of the town, and commanding a view of the wrong side of the façade of the pretentious, stuck-up Porte de Paris, from which you are able to judge of its merits, exactly as well as you would pronounce upon a picture by looking only at the back of it. The crowd is dense, but is also good-natured; and will allow us to penetrate to its very heart, if we push politely, and with a proper sprinkling of 'pardons.' Here we have a capital view of the fun. Before us rises a tall pole, or mast, which, under the name of Mât de Cocagne, is the popular idol of most French fêtes. Its head is garnished with an iron crown, to which are hung the material objects supposed most essential to human happiness. Nay, two iron circles are visible, with purses and gaudy articles of dress temptingly flaunting in the sunshine. Mark that brilliant silk handkerchief, that dark blue blouse, that smart pair of trousers. Mark, too, the tricolor flag at the summit of all, the trophy of him who shall reach the first prize. Do you feel your heart yearn after those gorgeous treasures? Well, the field of glory is open to you. You have only to disclose your wishes to the commissary of police; he is on the spot officially; and will immediately enrol you, and let you try your luck.

It will be wiser first to observe an experiment. In the first place, the pole is smeared with soft green soap, and then you have to mount it as well as you can. The candidates have stripped themselves as nudely as propriety permits, and with many an anxious look on high, strain every nerve to gain the prize. Solitary efforts are unavailing. One wiry fellow does contrive, by means best known to the tree-frog and the fly, to hug the pole tight, and to rise a few yards; but then a quivering tremor runs through his limbs, and he slides to the ground like a falling star. The authorities have considerately thrown down a bed of hay at the foot of the mast, to save amateurs from dangerous tumbles. It is also made use of by aspirants as a towel, to wipe off the superfluous soap that sticks to them on their descent. Here a solitary adventurer will never be monarch of all he surveys; so forces are combined in the form of brigades. A gang of gymnasts resolve to mount, by a common effort, or perish in the attempt. A light, little fellow starts the first; he is six or eight feet above the level of the ground. A second light fellow follows him: both wriggle and scriggle, and grasp the pole, till they have managed to rise another foot or two. Then comes a third; and then a fourth. But the one on the ground is out of breath, and his muscles have stood their utmost strain. He utters a cry of distress, and the Hercules of the brigade, understanding him, rushes to the post, and constitutes himself the base of this human column. They repose for a few minutes, with each man's feet on his inferior's shoulders, and then hard and fast to work again.

The remaining conspirators join the party. Little number one concentrates his energies; he mounts, he slips down, he mounts again; he surveys his prey with devouring eyes, makes a clutch with a bold right hand, and holds the iron circlet firm in his grasp. The feat is done. The supporting individual items, needed no longer, fall pell-mell and higgledy-piggledy upon the cushion of hay. The purse is soon between the victor's teeth; blouse and pantaloon float in mid-air; the flag is seized, and waved in a style that would not be unworthy of Austerlitz; and our hero, after descending with his booty, bears the banner before him, and followed by his brigade, with its own private drummer leading the way, walks off to the nearest public-house, to share the glory and the prizes amongst them. Some good things still remain upon the mast. The iron circlet is good-naturedly lowered, to give the brigade of 'little 'uns' a chance.

We won't stop to look at the races in sacks, because we can't get near enough to see them. All I can make out is, that that drunken old fool, sixty years of age, has tumbled down and broken his nose, and that the decided favourite upon the course is the conqueror of the Mât de Cocagne. We should have had a few additional broad grins from the water-jousting, in the dock of the Basse-Deale; but the temperature not being over-sultry, that sport is deferred till the approach of the dogdays.

The day's entertainments conclude with music. To-day and to-morrow, two grand concerts are given by the Musical Association; which concerts are greatly to be complained of, inasmuch as you cannot go to one without putting down your name for both. There is, certainly, no difficulty in obtaining admission, if you submit to these somewhat grinding terms. Still, it looks like a little bit of exclusiveness—misplaced on the occasion of a communal fête—and an enforcement of the due subordination of rank, which is nowhere better understood than on the continent. In the heart neither of bourgeois nor of noble has the principle of equality found a settlement. But never mind; we need not starve, although we cannot dine on turtle and turbot. A humbler bill of fare awaits us elsewhere. Let us hasten back to the beautiful promenade contiguous to the Champ de Mars. There, from the Napoleon Bridge—a Chinese structure, with a roof which acts as a sounding-board—we shall hear some excellent military music, performed by the bands belonging to two regiments. Polka, waltz, march, and overture, recompense us for the loss of scena and fantasia. The cool evening air by the side of the canal, under the canopy of meeting lime-trees, is probably not less pleasant than the atmosphere of the concert-room. What we lose in fashion, we gain in numbers. The more the merrier; though sometimes, it must be confessed, the fewer the better cheer. Thousands of well-dressed people surround us. The ladies' heads, adorned with caps instead of hats, produce the effect of a bed of the gaudiest flowers. That last morsel of harmony was admirable; but standing to hear it is rather fatiguing, after being on one's legs the whole day long. Come, let us do as

they do at Lille. Behold here an empty table; beside it are some vacant chairs. Take the good the gods provide you; and—waiter, a bottle of the best white beer!

A WORD WITH MAJOR TRUEFITT.

BY A LADY.

With the exiled duke in *As You Like It*, I may well exclaim:

> Art thou thus boldened, man, by thy distress,
> Or else a rude despiser of good manners,
> That in civility thou seem'st so empty?

Empty enough in other things besides civility, I have no doubt. It is pretty well known what majors generally are: there are few but have made some acquaintance with their leading peculiarities, in the character of that wigged, padded and stayed, worldly, but decidedly *respectable*, old counterfeit, Major Pendennis. Do you, Major Truefitt, indulge in the filthy practice of smoking cigars?—do you daily consume a certain quantity of wine, with sundry glasses of brandy and water?—and do you consider how those useless luxuries help to swell the amount of Christmas bills? Depend upon it, Major, the lady's wardrobe is not nearly as expensive as the gentleman's wine-cellar. Do you wear an all-round collar; an ungraceful chimney-pot-looking black abomination termed a hat; a long shapeless coat down to your heels; and, whether it rain or shine, a silk umbrella—the prevailing costume among the majority, whether majors or minors, of the fine gentlemen all of this modern time? Have you never fretted and fumed over a rumpled cravat; sighed as you incased yourself in a scantily-fitting waistcoat; and with military emphasis, blown up your unfortunate tailor when you saw a wrinkle in a cut-away coat? Do you know that I can buy half-a-dozen dresses at a less cost than you can purchase a suit of broad-cloth? Yet—shame upon you—you would grudge a poor woman the cap or bonnet she wears, not so much for her own gratification, as to make herself agreeable to your own ungrateful sex!

Make our own dresses! Have we not enough to do mending our brothers and husbands' socks and stockings, taking care of Master Tommy's hat and feather—mark that, major!—and Miss Janet's frocks, nursing young gentlemen with the measles and elderly ones with the gout? In your utter ignorance of political economy, you do not know that it is cheaper to employ a person to work for you, if your time is more valuable than that of the person so employed. Now, as you have given written-proofs that your time is utterly valueless, I would advise you to purchase needle, thimble, and congenial goose, then set to work, and make your own clothes. What a pitiful, helpless appearance you would make! for you know that you cannot even sew on a button, but must come to one of us 'victims,' as you truly term us, to do it for you.

I would wager my useful darning-needle against your worthless regulation-sword, that there is no Mrs Major Truefitt in existence. If there were, we would never have heard of your senseless tirade against Muslin Palaces. Are there no other palaces save and except Muslin and Gin Palaces? Where did you write that very paper that has raised the indignation of thousands of gentle maidens and tender wives? Was it not written in one of those destroyers of domestic happiness, termed a Club-house? Are there no plate-glass and gilding in those palaces of single selfishness? Yes, and other things besides—rich dishes, choice wines, luxurious arm-chairs! Yes, and packs of cards, and billiard-tables, and dice-boxes. Are not gentlemen tempted in those palaces to eat and drink more than they need—to play, bet, and call the main, whatever that may be? Are not more families ruined, more children beggared, more households broken up, more wives broken-hearted by the Club Palace than the Muslin Palace? You talk of 'Forbes Mackenzie Act:' are not the doors of your Club Palaces open every Sabbath, when the Muslin and Gin Palaces are strictly closed?

Major Truefitt! you are ignorant of the history of costume, or you would have known that, centuries ago, when the drapers' shops were not muslin palaces, but dingy, dirty, black holes, the ladies' dresses were ten times more extravagant, both as regards form and price, than they are now. In the *Vision of Pierce Plowman*, written about 1350, the poet thus describes the ladies' dresses of the period: 'They wore scarlet robes, trimmed with rich furs, and embroidered with gold and precious stones. Their girdles were handsomely ornamented with gold and silver, and they wore small swords, commonly called daggers.' Think of the daggers, Major! and bless your stars that now the lady's only weapon is the pen.

There were no Muslin Palaces in Henry VIII.'s time—you have heard of him, I presume? he liked 'a good hearty persecution,' like yourself, Major—yet Hall the chronicler tells us, that he saw six ladies dressed at his court in the following manner:—'Two were apparelled in crimson and purple satin, embroidered with gold, with marvellous rich and strange tires on their heads. Other two ladies in crimson and purple, made like long slops, embroidered and fretted with gold after the antique fashion; and over the slop was a short garment of cloth of gold, scant to the knee, fashioned like a tabard all over with small double rolls, all of flat gold of damask fret, and fringed gold, and on their scarves, and wrappers of damask gold with flat pipes, that strange it was to behold. The other ladies were in kirtles of crimson and purple satin, embroidered with a vynet of pomegranates of gold, all the garments cut compass-wise, having demi-sleeves, and naked down from the elbows, and over their rochettes of pleasaunce rolled with crimson velvet and set with letters of gold-like characters. Their heads rolled in pleasaunce and tippets like the Egyptians, embroidered with gold; their faces, necks, arms, and hands, covered in fine pleasaunce black, some call in Lombardine, which is marvellous thin, so the same ladies seem to be negroes or black-a-moores.'

Look at the *Morning Post* or *Court Journal*, and you will find no such dresses worn at the present day. We have reformed our dresses. The wheel-farthingale, hoop, coat and waistcoat of blue camlet, trimmed with silver, the black patches on the face, and a variety of other 'bewilderments,' that you may read about in the *Spectator*, are now unknown. Look at Hogarth's pictures: there you will see the macaroni head-dress, where mountains of curls, powder, flowers, and feathers rise, 'alp above alp,' upon the foreheads of our stately grandmothers. All that has passed away. We are still subject to the sway of fashion, I admit; but who is our leader? Look at the lower, right-hand corner of your commission, and you will see the much-respected name—Victoria! The women of Britain are very well contented to follow the example of that virtuous, amiable, and illustrious lady. They will not wear black silk dresses with plain frills, cut, I presume, to military regulation, to please Major Truefitt, who then—for he is capable of anything—might term them the Black Guards. No! we are perfectly willing and ready to submit to marital, but never to martial law.

Do you know, Major, how many millions of your fellow-creatures earn their daily bread by making the 'gauzy, crapy, ribbony' articles you would so ruthlessly proscribe? What do you think would become of those poor, but industrious people, if your agitation should be successful? Are you prepared to stop the looms of Paisley and Spitalfields; the poor

Irish from embroidering muslin collars; and the men of Coventry—where you should be sent to—from making ribbons, by your Quixotic endeavours to shut up Muslin Palaces? If not, then shut up your own writing-desk, and leave the reform of the ladies' dresses to the ladies themselves, who understand the subject much better than all the majors in Her Majesty's service.

HOME YEARNINGS.

[This natural and touching effusion appears in a volume, entitled *Scottish Songs, Ballads, and Poems*, by Hew Ainslie: Redfield, New York, 1855. It represents the feelings of an elderly settler in America, regarding his native country and the recollections of earlier and happier days. This settler is the poet himself, a man whose name will be kept alive in Scotland. Upwards of thirty years ago, a short while before emigrating to the West, he published a volume, entitled a *Pilgrimage to the Land of Burns*, full of fine description and warm poetic feeling, and containing many beautiful imitations of the old Scottish ballads. A native of the same county with Burns, his language occasionally reminds us of that of the illustrious Ploughman; but in all essential respects his compositions are original and racy in a high degree. The following verses are addressed to an old friend:—]

I've green'd to see ance mair, John, — longed
Our brave auld countrie;
The stately towers, the bin'wood bowers,
I haunt in memorie.
I haunt in memorie, John,
As ghaists, auld minstrels say,
Will wander round the hallowed ground
That kent their earthly day.

Lang thirty years are gane, John,
Since in your wastlin sea,
Auld Scotia's hills sank down, John,
Nae mair to rise on me;
Nae mair to rise on me, John,
Though sadder sets I've seen,
The set o' beaming eyes, John,
That gilt this earthly scene.

But blessèd be that Power, John,
That ga'e us power to raise
The dear departed dead, John,
The joys o' ither days.
Ay, thoughts o' sunny hours, John,
In days o' darkest hue,
Can make a rift in dimmest lift,
An' let a star look through.

Thus in my midnight ponderings,
In sleep or waking dream,
I range the glen by Hawthornden,
Or sport by Girvan's stream;
Dear 'Girvan's fairy haunted stream,'
Bargany's banks sae braw;
The auld ash-tree, that cosilie
Leant owre my daddy's ha'.

The bleaching haugh, wi' fencing saugh, — green willow
The garden tosh and trig, — trim—neat
Wi' divot edge, an' clippit hedge, — turf
Where linties love to bigg; — linnets—build
Where linties love to bigg, John,
An' merry sangsters meet;
Syne yoking tilt, wi' mony a lilt, — song
Made April mornings sweet.

Sic scenes are hoarded up, John,
In memory's sacred ben;
This thriftless heart wi' a' may part,
But them I maunna spen'.
O, them I daurna spen', John,
Or what were left to me
But frostit crops o' early hopes,
That sicken ane to see?

Dear sainted Eleanora!
Sweet sister o' my heart,
It was thy gentle whisperings
First made this spirit start;
First made me wondering see, John,
The lovely things that lie
Around us, on the earth, John,
Above us, in the sky.

Ay, bravely broke my dawing,
A mild an' pleasant glow;
Now wintry winds are blawing,
My day is wearing low.
But hush! I've said an' sung, John,
An' sing it yet again,
Howe'er the heart is wrung, John,
The word is—Ne'er complain.

FAT MEN.

There is something cordial about a fat man. Everybody likes him, and he likes everybody. Your Ishmaelites are, in truth, a bareboned race; a lank tribe they are, skeleton and bile. Food does a fat man good; it clings to him; it fructifies on him; he swells nobly out; and fills a generous space in life. He is a living, walking minister of gratitude to the earth, and the fulness thereof; an incarnate testimony against the vanities of care; a radiant manifestation of the wisdom of good-humour. A fat man, therefore, almost in virtue of being a fat man, is, *per se*, a popular man, and commonly he deserves his popularity. In a crowded vehicle, the fattest man will ever be the most ready to make room. Indeed, he seems to be half sorry for his size, lest it be in the way of others; but others would not have him less than he is, for his humanity is usually commensurate with his bulk. A fat man has abundance of rich juices. The hinges of his system are well oiled; the springs of his being are noiseless; and so he goes on his way rejoicing, in full contentment and placidity. A fat man feels his position solid in the world; he knows that his being is cognisable; he knows that he has a marked place in the universe, and that he need take no extra pains to advertise mankind that he is among them; he knows that he is in no danger of being overlooked. It does really take a deal of wrong to make one really hate a fat man; and if we are not always as cordial to a thin man as we should be, Christian charity should take into account the force of prejudice which we have to overcome against his thinness. A fat man is nearest to that most perfect of figures, a mathematical sphere; a thin man to that most limited of conceivable dimensions, a simple line. A fat man is a being of harmonious volume, and holds relations to the material universe in every direction; a thin man has nothing but length; a thin man, in fact, is but the continuation of a point.—*Lectures of Henry Giles.*

COBBETT ON DRINKING AFTER DINNER.

A man that cannot pass an evening without drink, merits the name of a sot. Why should there be drink for the purpose of carrying on conversation? Women stand in need of no drink to stimulate them to converse; and I have a thousand times admired their patience, in sitting quietly at their work while their husbands are engaged, in the same room, with bottles and glasses before them, thinking nothing of the expense, and still less of the shame, which the distinction reflects upon them. We have to thank the women for many things, and particularly for their strictly sober habits. Men drive them from the table, as if they said to them: 'You have had enough; food is sufficient for you; but we must remain to fill ourselves with drink, and to talk in language which your ears ought not to endure.' When women are getting up to retire from the table, men rise *in honour* of them; but they take special care not to follow their excellent example.—*Cobbett.*

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